



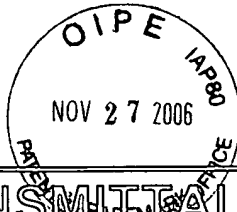
<b>TRANSMITTAL FORM</b> <i>(to be used for all correspondence during pendency of filed application)</i>		Application Number	10/668,651
		Filing Date	September 23, 2003
		First Named Inventor	R. Dean Adams
		Group Art Unit Number	2138
		Examiner Name	Phung M. Chung
Total Number of Pages in This Submission	10*	Attorney Docket Number	23748-09256

ENCLOSURES <i>(check all that apply)</i>	
<input checked="" type="checkbox"/> Fee Transmittal Form (in duplicate) <input checked="" type="checkbox"/> Check Enclosed	<input type="checkbox"/> Issue Fee Transmittal
<input checked="" type="checkbox"/> Return Receipt Postcard	<input type="checkbox"/> Letter to Chief Draftsperson
<input type="checkbox"/> Response to Notice to File Missing Parts	<input type="checkbox"/> Formal Drawing(s): [ ] Sheet(s) of Figure(s) [ ]
<input type="checkbox"/> Assignment & Recordation Cover Sheet	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input type="checkbox"/> Declaration	<input type="checkbox"/> Appeal Communication to Group <i>(Appeal Notice, Brief, Reply Brief)</i>
<input type="checkbox"/> Power of Attorney	<input type="checkbox"/> Certified Copy of Priority Document(s)
<input type="checkbox"/> Application Data Sheet	<input type="checkbox"/> After Allowance Communication to Group
<input checked="" type="checkbox"/> Supplemental Information Disclosure Statement & PTO/SB/08A	<input type="checkbox"/> _____
<input checked="" type="checkbox"/> Copies of IDS Cited Non-Patent References	<input type="checkbox"/> _____
<input type="checkbox"/> Request for Corrected Filing Receipt	<input type="checkbox"/> _____
<input type="checkbox"/> Request for Correction of Recorded Assignment	<input type="checkbox"/> _____
<input type="checkbox"/> Amendment/Response: [ ] Page(s)	<input type="checkbox"/> _____
<input type="checkbox"/> After Final	<input type="checkbox"/> _____
<input type="checkbox"/> Status Request	<input type="checkbox"/> _____
<input type="checkbox"/> Revocation and Substitute Power of Attorney	<input type="checkbox"/> _____

REMARKS: \*Page count does not include cited references.

SIGNATURE OF ATTORNEY OR AGENT			
Signature:			
Attorney/Reg. No.:	Rajiv P. Patel, Reg. No. 39,327	Dated:	11/21/2006

CERTIFICATE OF MAILING			
I hereby certify that this correspondence, including the enclosures identified above, is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below. If the Express Mail Mailing Number is filled in below, then this correspondence is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service pursuant to 37 CFR 1.10.			
Signature:			
Typed or Printed Name:	Rajiv P. Patel	Dated:	11/21/2006
Express Mail Mailing Number (optional):			



EFW/K

# FEE TRANSMITTAL for FY 2006

Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

**TOTAL AMOUNT OF PAYMENT (\$ 180)**

## Complete if Known

Application Number	10/668,651
Filing Date	September 23, 2003
First Named Inventor	R. Dean Adams
Examiner Name	Phung M. Chung
Art Unit	2138
Attorney Docket No.	23748-09256

## METHOD OF PAYMENT (check all that apply)

☒ Check ☐ Credit Card ☐ Money Order ☐ Other ☐ None  
☐ Deposit Account:

Deposit Account Number 19-2555

Deposit Account Name Fenwick & West LLP

The Commissioner is authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☒ Credit any overpayments  
☒ Charge all required fee(s) or any underpayment of fee(s) due under 37 CFR §1.16 or §1.17 during the pendency of this application  
☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.

## FEE CALCULATION

### 1. BASIC FILING FEE

Large Entity Small Entity

Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee Paid
----------	----------	----------	----------	-----------------	----------

**SUBTOTAL (1) (\$ 0)**

### 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

	Extra Claims	Fee from below	Fee Paid
Total Claims	-20** =	X	=
Independent Claims	-3** =	X	=
Multiple Dependent			=

Large Entity Small Entity

Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description
1202	50	2202	25	Claims in excess of 20
1201	200	2201	100	Independent claims in excess of 3
1203	360	2203	180	Multiple dependent claim, if not paid
1204	200	2204	100	**Reissue independent claims over original patent
1205	50	2205	25	**Reissue claims in excess of 20 and over original patent

**SUBTOTAL (2) (\$ 0)**

\*\*or number previously paid, if greater; For Reissues, see above

## FEE CALCULATION (continued)

### 3. ADDITIONAL FEES

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1051	130	2051	65	Surcharge - late filing fee or oath or declaration	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for <i>ex parte</i> reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	120	2251	60	Extension for reply within first month	
1252	450	2252	225	Extension for reply within second month	
1253	1020	2253	510	Extension for reply within third month	
1254	1,590	2254	795	Extension for reply within fourth month	
1255	2,160	2255	1,080	Extension for reply within fifth month	
1401	500	2401	250	Notice of Appeal	
1402	500	2402	250	Filing a brief in support of an appeal	
1403	1000	2403	500	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	500	2452	250	Petition to revive - unavoidable	
1453	1,500	2453	750	Petition to revive - unintentional	
1501	1,400	2501	700	Utility issue fee (or reissue)	
1502	800	2502	400	Design issue fee	
1503	1100	2503	550	Plant issue fee	
1460		1460		Petitions to the Director	
1807	50	1807	50	Processing fee for Provisional Applications	
1806	180	1806	180	Submission of Information Disclosure Stmt	180
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	790	2809	395	Filing a submission after final rejection (37 CFR 1.129(a))	
1810	790	2810	395	For each additional invention to be examined (37 CFR 1.129(b))	
1801	790	2801	395	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	

Other fee (specify) \_\_\_\_\_

**SUBTOTAL (3) (\$ 180)**

\*Reduced by Basic Filing Fee Paid

## SUBMITTED BY

Name (Print/Type)	Rajiv P. Patel	Registration No. (Attorney/Agent)	39,327	Complete (if applicable)	
Signature		Date		Telephone (650) 335-7607	



THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS: R. Dean Adams et al.  
APPLICATION NO.: 10/668,651  
FILING DATE: September 23, 2003  
TITLE: Redundant Memory Self-Test  
EXAMINER: Phung M. Chung  
GROUP ART UNIT: 2138  
ATTY. DKT. NO.: 23748-09256

**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date shown below:

Dated: 11/21/2006

By: Rajiv Patel

Rajiv P. Patel, Reg. No.: 39,327

MAIL STOP AMENDMENT  
COMMISSIONER FOR PATENTS  
P.O. BOX 1450  
ALEXANDRIA, VA 22313-1450

**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**

**Under 37 CFR §§ 1.56 and 1.97-98**

SIR:

Pursuant to the provisions of 37 CFR §§ 1.56 and 1.97-98, enclosed herewith is modified form PTO/SB/08A listing references for consideration by the Examiner. A concise explanation in accordance with 37 CFR §1.98(a)(3) of the relevant portions of the cited reference that are not in the English language are believed to be set forth in the English abstract accompanying the reference.

The filing of this Information Disclosure Statement shall not be construed as a representation regarding the completeness of the list of references, or that inclusion of a reference in this list is an admission that it is prior art or is pertinent to this application, or that a search has been made, or as an admission that the information listed is, or may be considered to be, material to patentability, or that no other material information exists, and shall not be construed as an admission against interest in any manner.

This Information Disclosure Statement is being filed:

11/28/2006 MBELETE1 00000010 10668651

01 FC:1806

180.00 OP

23748/09256/DOCS/1674534.1

- ☐ within three months of the filing date of the application, or date of entry into the national stage of an international application, or before the mailing date of a first office action on the merits, whichever event last occurred;
- ☐ before the mailing of a first official action after the filing of a request for continued examination (RCE) under 37 CFR § 1.114;
- ☒ after three months of the filing date of this national application or the date of entry of the national stage in an international application, or after the mailing date of the first official action on the merits, whichever event last occurred, but before the mailing date of the first to occur of either: (1) a final action under 37 CFR § 1.113; or (2) an action that otherwise closes prosecution in the application, and:
  - ☒ attached hereto is the fee set forth under 37 CFR § 1.17(p) for submission of this Information Disclosure Statement under 37 CFR § 1.97(c); OR
  - ☐ Applicant certifies pursuant to 37 CFR § 1.97(e) that:
    - ☐ each item of information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Statement; OR
    - ☐ no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the person signing this certification after making reasonable inquiry, no item of information contained in this Statement was known to any individual designated under 37 CFR § 1.56(c) more than three months prior to the filing of this Statement;
- ☐ on or before the payment of the issue fee but after the mailing date of the first to occur of either: (1) a final action under 37 CFR § 1.113; (2) a notice of allowance under 37 CFR § 1.311; or (3) an action that otherwise closes prosecution in the application, and:
  - ☐ Applicant certifies pursuant to 37 CFR. § 1.97(e) that:
    - ☐ each item of information contained in this Information Disclosure Statement was cited in a communication from a

- foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Statement;
- ☐ no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the person signing this certification after making reasonable inquiry, no item of information contained in this Statement was known to any individual designated under 37 CFR § 1.56(c) more than three months prior to the filing of this Statement; AND
- ☐ attached hereto is the fee set forth under 37 CFR §1.17(p) for submission of this Information Disclosure Statement under 37 CFR. § 1.97(d); OR
- ☐ after the payment of the issue fee. Applicant requests that the information contained in this Information Disclosure Statement be placed in the file according to 37 CFR § 1.97(i), although the information may not be considered by the USPTO.
- ☐ Enclosed is a copy of each listed reference that may be material to the examination of this application, and for which there may be a duty to disclose.
- ☐ This application relies, under 35 U.S.C. § 120, on the earlier filing date of prior application No. \_\_\_\_\_, filed on \_\_\_\_\_, and the references cited therein are hereby referenced, but are not required to be provided in this application under 37 CFR § 1.98(d).
- ☒ Copies of any foreign patent documents and non-patent literature cited herein are enclosed.
- ☐ Each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application, and the communication was not received by any individual designated in 37 CFR § 1.56(c) more than thirty days prior to the filing of this Information Disclosure Statement. 37 CFR § 1.704(d).
- ☐ Applicant submits that no fee is required for the consideration of this Information Disclosure Statement.

Consideration of the listed references and favorable action are solicited.

Respectfully submitted,  
R. DEAN ADAMS ET AL.

Dated: 11/21/2006

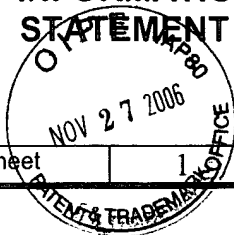
By: Raj Patel  
Rajiv P. Patel, Reg. No.: 39,327  
Fenwick & West LLP  
Silicon Valley Center  
801 California Street  
Mountain View, CA 94041  
Tel.: (650) 335-7607  
Fax.: (650) 938-5200

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

## Complete if Known

Application No.	10/668,651
Filing Date	September 23, 2003
First Named Inventor	R. Dean Adams
Art Unit	2138
Examiner Name	Phung M. Chung
Attorney Docket Number	23748-09256

Sheet 1 of 3



## U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Document No. Number – Kind Code <sup>2</sup> (if known)	Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
	A1	US-2005/0257109 A1	11-17-2005	Averbuj et al.
	A2	US-6,907,554	11-11-2004	Adams et al.
	A3	US-2004/0199843 A1	10-07-2004	Hansquine et al.
	A4	US-6,795,942	09-21-2004	Schwarz
	A5	US-6,694,461	02-17-2004	Treuer
	A6	US-6,668,347	12-23-2003	Babella et al.
	A7	US-6,643,807	11-04-2003	Heaslip et al.
	A8	US-2003/0167427 A1	09-04-2003	Kraus et al.
	A9	US-6,594,788	07-15-2003	Yasui
	A10	US-2003/0120974 A1	06-26-2003	Adams et al.
	A11	US-2003/0074616 A1	04-17-2003	Dorsey
	A12	US-6,373,758	04-16-2002	Hughes et al.
	A13	US-2002/0114202 A1	08-22-2002	Adams et al.
	A14	US-6,304,989	10-16-2001	Kraus et al.
	A15	US-6,259,637	07-10-2001	Wood et al.
	A16	US-6,256,757	07-03-2001	Arkin
	A17	US-6,255,836	07-03-2001	Schwarz et al.
	A18	US-6,085,334	07-04-2000	Giles et al.
	A19	US-6,073,258	06-06-2000	Wheater
	A20	US-6,070,256	05-30-2000	Wu et al.
	A21	US-6,026,505	02-15-2000	Hederg et al.
	A22	US-5,961,653	10-05-1999	Kalter et al.
	A23	US-5,912,901	06-15-1999	Adams et al.
	A24	US-5,812,469	09-22-1998	Nadeau-Dostie et al.
	A25	US-5,796,745	08-18-1998	Adams et al.
	A26	US-5,784,323	07-21-1998	Adams et al.
	A27	US-5,764,878	06-09-1998	Kablanian et al.

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609.

Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				<b>Complete if Known</b>	
				Application No.	10/668,651
				Filing Date	September 23, 2003
				First Named Inventor	R. Dean Adams
				Art Unit	2138
				Examiner Name	Phung M. Chung
Sheet	2	of	3	Attorney Docket Number	23748-09256

U.S. PATENT DOCUMENTS				
Examiner Initials*	Cite No. <sup>1</sup>	Document No. Number – Kind Code <sup>2</sup> (if known)	Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
	A28	US-5,535,164	07-09-1996	Adams et al.
	A29	US-5,337,318	08-09-1994	Tsukakoshi et al.
	A30	US-5,313,424	05-17-1994	Adams et al.
	A31	US-5,173,906	12-22-1992	Dreibelbis et al.
	A32	US-4,751,656	06-14-1988	Conti et al.
	A33	US-4,603,404	07-29-1986	Yamauchi et al.
	A34	US-10/668,651	09-23-2003	Adams et al.

FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> – Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T <sup>6</sup>
	B1	EP 1343174 A2	09-10-2003	iRoC Technologies	
	B2	EP 1343173 A1	09-10-2003	iRoC Technologies	
	B3	WO 02/065291 A2	08-22-2002	iRoC Technologies	
	B4	WO 01/67463 A1	03-09-2001	Mentor Graphics Corporation	

OTHER REFERENCES – NON-PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>6</sup>	
	C1	AITKEN, R., "Applying Defect-Based Test to Embedded Memories in a COT Model," Proceedings IEEE Memory Technology Design and Test Workshop, 2003, pp. 1-6.		
	C2	BENSO, A. et al., "Programmable Built-In Self-Testing of Embedded RAM Clusters in System-On-Chip Architecture," Communications Magazine, IEEE, September 2003, pp. 90-97, Vol. 41, No. 9.		
	C3	BORRI, S. et al., "Defect-Oriented Dynamic Fault Models for Embedded-SRAMs," 6 pages.		
	C4	"Built-In Self-Test (BIST) Using Boundary Scan," Texas Instruments, December 1996, 21 pages.		
	C5	DEKKER, R. et al., "A Realistic Self-Test Machine for Static Random Access Memories," 1988 International Test Conference. IEEE. 1988. pp. 353-361.		

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609.  
 Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

23748/09256/DOCS/1674509.1



**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT****Complete if Known**

Application No.	10/668,651
Filing Date	September 23, 2003
First Named Inventor	R. Dean Adams
Art Unit	2138
Examiner Name	Phung M. Chung
Attorney Docket Number	23748-09256

Sheet

3

of

3

**OTHER REFERENCES – NON-PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>6</sup>
	C6	FANG, B.H. et al., "Power-Constrained Embedded Memory BIST Architecture," 18 <sup>th</sup> IEEE International Symposium on Defect and Fault Tolerance in VLSI Systems, 2003 Proceedings, November 3-5, 2003, pp. 451-458.	
	C7	HAMDIOUI, S. et al., "March SS: A Test for all Static Simple RAM Faults," Proceedings of the 2002 IEEE International Workshop on Memory Technology, Design and Testing (MTDT 2002), IEEE, 2002, 6 pages.	
	C8	KOIKE, H. et al., "A BIST Scheme Using Microprogram ROM for Large Capacity Memories," 1990 International Test Conference, IEEE, 1990, pp. 815-822.	
	C9	KOREN, I. et al., "Fault Tolerance in VLSI Circuits," Computer, IEEE, July 1990, pp. 73-83.	
	C10	KOSCIANSKI, M., "Built-In Self Test Insertion In A System On A Chip," ETW 2000, May 2000, Silicon & Software Systems, pp. 1-19.	
	C11	NAGURA, Y. et al., "Test Cost Reduction by At-Speed BISR for Embedded DRAMs," ITC International Test Conference, IEEE, 2001, pp. 182-187.	
	C12	POWELL, T.J. et al., "BIST for Deep Submicron ASIC Memories with High Performance Application," ITC International Test Conference, IEEE, 2003, p. 386-392.	
	C13	VAN DE GOOR, A. et al., "Industrial Evaluation of DRAM SIMM Tests," ITC International Test Conference, IEEE, 2000, pp. 426-435.	
	C14	WU, Cheng-Wen, "Memory Built-In Self-Test," National Tsing Hua University, 33 pages.	

Examiner  
SignatureDate  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609.

Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

23748/09256/DOCS/1674509.1